



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.: 10/787,430
Filing Date: February 26, 2004
Applicant: Kenneth M. Sprouse, et al.
Group Art Unit: 3746
Examiner: Ehud Gartenberg
Title: Non-Swirl Dry Low NO_x (DLN) Combustor
Attorney Docket: 7784-000709

Director of the United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to 37 C.F.R. §§ 1.56, 1.97 and 1.98, Applicant hereby submits an Information Disclosure Statement for consideration by the Examiner.

I. LIST OF PATENTS, PUBLICATIONS, AND OTHER INFORMATION

The patents, publications and other information requested to be considered by the Office (except unpublished U.S. patent applications) are listed on Form 1449 attached hereto.

II. COPIES

A. ☒ Submitted herewith is a legible copy of (i) each foreign patent; (ii) each publication or that portion which caused it to be listed, other than U.S. patents and U.S. patent application publications unless required by the Office; (iii) each unpublished U.S. application listed below in Section IV (i.e., including the specification, claims, and any drawing of the application, or that portion of the application which caused it to be listed, including any claims directed to that portion), except for such applications filed on or after June 30, 2003, pursuant to the Waiver of the Copy Requirement in 37 C.F.R. 1.98 (OG Notice dated October 19, 2004); and (iv) all other information or that portion which caused it to be listed.

B. ☐ Any patents, publications or other information which are listed on Form 1449 or on the copies of PTO-892, but which are not enclosed herewith, were previously cited by or submitted to the PTO in one of the following applications which has been relied upon for an earlier filing date under 35 U.S.C. § 120:

U.S. Serial Number

U.S. Filing Date

C. ☐ This is a PCT application in the entry of the National Phase in the United States. A copy of the International Search Report is attached for the Examiner's information. The documents listed on the International Search report are listed on the attached Form 1449 for consideration by the Examiner and for listing on any patent resulting from this application. If the International Search report was from the US, EPO, or JPO search authorities, copies of these references should have been supplied to the USPTO under the bilateral agreement and are believed to be in the file of the above-identified application. (MPEP 1893.03(g).)

III. CONCISE EXPLANATION OF THE RELEVANCE (check at least one box)

A. ☒ Except as may be indicated below in (B), all of the patents, publications or other information are in the English language (concise explanation not required).

B. ☒ A concise explanation of the relevance of each patent, publication or other information listed that is not in the English language is as follows (see 37 C.F.R. § 1.98(a)(3)):

1. ☐ See the attached foreign patent office communication from a counterpart foreign application:

2. ☐ English translations are provided:

3. ☒ Other:

English Abstracts are provided for German Patent No. DE 100 14 092, EPO Patent No. 0 889 289, Japanese Patent No. 58-179730, Japanese Patent No. 59-107119, Japanese Patent No. 60-64131 and Japanese Patent No. 60-66022.

C. ☐ The following additional information is provided for the Examiner's consideration.

IV. CROSS REFERENCE TO RELATED APPLICATION(S)

A. ☒ The Examiner is advised that the following co-pending application(s) contain(s) subject matter that may be related to the present application. By bringing this(these) application(s) to the Examiner's attention, Applicant(s) does (do) not waive the confidentiality provisions of 35 U.S.C. § 122.

<u>Serial No.</u>	<u>Filing Date</u>	<u>Art Unit</u>
10/120,268	4/10/02	3746
10/729,595	12/5/03	3746
10/397,412	3/26/03	3746
10/397,881	3/26/03	3746
10/729,679	12/5/03	3746

V. THIS IDS IS BEING FILED UNDER

A. ☒ **37 C.F.R. § 1.97(b):** (check only one box)

- ☐ within three months of the filing date of a national application other than a continued prosecution application under § 1.53(d) (37 C.F.R. § 1.97(b)(1)). No fee or certification is required.
- ☐ within three months of the date of entry of the national stage as set forth in § 1.491 in an international application (37 C.F.R. § 1.97(b)(2)). No fee or certification is required.
- ☐ before the mailing of a first Office Action on the merits (37 C.F.R. § 1.97(b)(3)). No fee or certification is required. In the event that a first Office Action on the merits has been issued, please consider this IDS under 37 C.F.R. § 1.97(c) and see the certification under 37 C.F.R. § 1.97(e) below; or, if no certification has been made, charge our deposit account a fee in the amount of \$180.00 as required by 37 C.F.R. § 1.17(p).
- ☒ before the mailing of a first Office Action after the filing of a request for continued examination under 37 C.F.R. § 1.114. No fee or certification is required.

B. ☐ **37 C.F.R. § 1.97(c):** (check only one box)

before the mailing date of either any Final Office Action under 37 C.F.R. § 1.113, a Notice of Allowance under 37 C.F.R. § 1.311, or an action that otherwise closes prosecution.

- ☐ No certification; therefore, a fee in the amount of \$180.00 is required by 37 C.F.R. § 1.17(p).

2. ☐ See the certification below. No fee is required.

C. ☐ **37 C.F.R. § 1.97(d):**

after the mailing date of either a Final Office Action under 37 C.F.R. § 1.113 or a Notice of Allowance under 37 C.F.R. § 1.311, yet on or before payment of the issue fee.

1. ☐ See the certification below. A fee in the amount of \$180.00 is required by 37 C.F.R. § 1.17(p).

VI. CERTIFICATION UNDER 37 C.F.R. § 1.97(e): (check only one box)

The undersigned hereby certifies that:

A. ☐ each item of information contained in this IDS was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS (See 37 C.F.R. § 1.97(e)(1)). See further statement under 37 C.F.R. 1.704(d) below in section VII, if applicable; or

B. ☐ no item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in this IDS was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this IDS (See 37 C.F.R. § 1.97(e)(2)).

C. ☐ some of the items of information were first cited in a communication from a foreign patent office. As to this information, the undersigned hereby certifies that each item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS. As to the remaining information, the undersigned hereby certifies that no item of this remaining information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in this IDS was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this IDS.

VII. STATEMENT UNDER 37 C.F.R. 1.704(d)

The undersigned hereby states that:

☐ each item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart application and this communication was not received by any individual designated in 37 C.F.R. § 1.56(c) more than thirty days prior to the filing of this IDS.

VII. PAYMENT OF FEES (check only one box)

A. ☐ A check in the amount of \$180.00 is enclosed for the above identified fee.

B. ☐ Please charge Deposit Account No. 08-0750 in the amount of \$180.00 for the above-indicated fee. A duplicate copy of this paper is attached.

The above references are being cited only in the interest of candor and without any admission that they constitute statutory prior art, contain matter which anticipates the invention, or which would render the same obvious, either singly or in combination, to a person of ordinary skill in the art. Furthermore, this Information Disclosure Statement shall not be construed as a representation that a search has been made.

If it is determined that this IDS has been filed under the wrong rule, the PTO is requested to consider this IDS under the proper rule (with a petition if necessary) and charge the appropriate fee to Deposit Account No. 08-0750.

Please charge any additional fees or credit any overpayment pursuant to 37 C.F.R. § 1.16 or § 1.17 to Deposit Account No. 08-0750.

Respectfully submitted,

Dated:

July 8, 2005

By:

Mark D. Elchuk
Mark D. Elchuk
Reg. No. 33,686

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MDE/sed



FORM HDP-1449 (Based on Form PTO-1449)

**PATENT AND TRADEMARK OFFICE
INFORMATION DISCLOSURE CITATION**

(Use several sheets if necessary)

Sheet 1 of 5

ATTORNEY DOCKET NO.	SERIAL NO.
7784-000709	10/787,430
APPLICANT	
Kenneth M. Sprouse, et al.	
FILING DATE	GROUP
February 26, 2004	3746

U.S. PATENT DOCUMENTS

Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
1.		2,655,787	10/1953	Brown		
2.		2,930,192	3/1960	Johnson		
3.		3,914,096	10/1975	Schladitz		
4.		4,030,875	6/1977	Grondahl et al.		
5.		4,072,007	2/1978	Sanday		
6.		4,628,687	12/1986	Strom		
7.		4,651,534	3/1987	Stroem		
8.		4,731,989	3/1988	Furuya et al.		
9.		4,870,824	10/1989	Young		
10.		4,928,481	5/1990	Joshi et al.		
11.		5,000,004	3/1991	Yamanaka et al.		
12.		5,054,280	10/1991	Ishibashi et al.		
13.		5,214,912	6/1993	Farrauto et al.		
14.		5,281,128	1/1994	Dalla Betta et al.		
15.		5,309,637	5/1994	Moriarty		
16.		5,319,923	6/1994	Leonard et al.		
17.		5,321,948	6/1994	Leonard		
18.		5,395,235	3/1995	Lan-Sun Hung		
19.		5,450,725	9/1995	Takahara et al.		
20.		5,461,864	10/1995	Betta et al.		
21.		5,497,611	3/1996	Benz et al.		

Examiner:

Date Considered:

EXAMINER: Please initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



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Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
22.		5,511,972	4/1996	Dalla Betta et al.		
23.		5,512,250	4/1996	Dalla Betta et al.		
24.		5,518,697	5/1996	Dalla Betta et al.		
25.		5,575,153	11/1996	Ito et al.		
26.		5,577,906	11/1996	Hanakata et al.		
27.		5,675,971	10/1997	Angel et al.		
28.		5,709,077	1/1998	Beichel		
29.		5,715,673	2/1998	Beichel		
30.		5,836,164	11/1998	Tsukahara et al.		
31.		5,899,679	5/1999	Euzen et al.		
32.		5,938,427	8/1999	Suzuki et al.		
33.		5,956,937	9/1999	Beichel		
34.		5,970,702	10/1999	Beichel		
35.		6,109,018	8/2000	Rostrup-Nielsen et al.		
36.		6,170,264	1/2001	Viteri et al.		
37.		6,174,159	1/2001	Smith et al.		
38.		6,189,314	2/2001	Yamamoto et al.		
39.		6,192,688	2/2001	Beebe		
40.		6,202,402	3/2001	Sattelmayer		
41.		6,205,768	3/2001	Dibble et al.		

Examiner:

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U.S. PATENT DOCUMENTS

Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
42.		6,209,325	4/2001	Alkabie		
43.		6,289,667	9/2001	Kolaczowski et al.		
44.		6,302,683	10/2001	Vestin et al.		
45.		6,334,309	1/2002	Luciano et al.		
46.		6,358,040	3/2002	Pfefferle et al.		
47.		6,386,862	5/2002	Fujita et al.		
48.		6,415,608	7/2002	Newbury		
49.		6,520,769	2/2003	Tachihara et al.		
50.		6,584,760	7/2003	Lipinski et al.		
51.		6,595,003	7/2003	Dalla Betta et al.		
52.		6,612,830	9/2003	Berry et al.		
53.		6,669,463	12/2003	Beutel et al.		
54.		6,709,264	3/2004	Hermann et al.		
55.		6,712,602	3/2004	Kang et al.		
56.		6,718,772	4/2004	Dalla Betta et al.		
57.		6,752,623	6/2004	Smith et al.		
58.		2002/0139119	10/2002	Touchton et al.		
59.		2003/0056519	3/2003	Newbury		
60.		2003/0192318	10/2003	Sprouse et al.		
61.		2003/0192319	10/2003	Sprouse et al.		

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7784-000709

SERIAL No.

10/787,430

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U.S. PATENT DOCUMENTS

Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(if appropriate) Filing Date
62.		2004/0003598	1/2004	Farhangi		
63.		2004/0000146	1/2004	Inoue et al.		
64.		2004/0048211	3/2004	Martin et al.		

FOREIGN PATENT DOCUMENTS

Ref. Desig.	Examiner's Initials	Document Number	Date	Country	Class/ Subclass	Translation Yes	No
1.		0 304 707	5/1988	EPO			
2.		0 889 289	6/1998	EPO		Abstract	
3.		100 14 092	9/2000	Germany		Abstract	
4.		58-179730	10/1983	Japan		Abstract	
5.		59-107119	6/1984	Japan		Abstract	
6.		60-64131	12/1985	Japan		Abstract	
7.		60-66022	4/1985	Japan		Abstract	
8.		WO 02/27243	4/2002	WIPO			

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)

Ref. Desig.	Examiner's Initials	
1.		Bernard Lewis, Ph.D., Sc.D. (Cantab.) and Guenther von Elbe, Ph.D. (Berlin), Combustion, Flames and Explosions of Gases, Second Edition, Academic Press, 1961, Pages 22-29, 56-65, 330-331.

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OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)		
Ref. Desig.	Examiner's Initials	
2.		Forman A. Williams, Combustion Theory, The Fundamental Theory of Chemically Reacting Flow Systems, 1965, Pages 186-201.
3.		Catalytica, How it Works, http://www.catalyticaenergy.com/xonon/how_it_works.html , printed 2/06/02.
4.		Catalytica, How it Works, http://www.catalyticaenergy.com/xonon/how_it_works1.html , printed 2/06/02.

Examiner:	Date Considered:
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